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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,659

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Euan Christopher Smith

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EXAMINER

FANG, PAKEE

ART UNIT

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2629

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,659	<b>Applicant(s)</b> SMITH ET AL.	
	<b>Examiner</b> PAKEE FANG	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-51 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claim 1 – 18, & 35, drawn to a display matrix, classified in class 345, subclass 55.
  - II. Claim 19 -22, drawn to image matching, classified in class 382, subclass 181.
  - III. Claim 23 -24, drawn to security data network, classified in class 713, subclass 152.
  - IV. Claim 25, drawn to data mining, classified in class 702, subclass 196.
  - V. Claim 26 drawn to sensor data processing, classified in class 702, subclass 199.
  - VI. Claim 27 - 29, drawn to biological data analysis, classified in class 703, subclass 11.
  - VII. Claim 30 - 31, drawn to data analysis, classified in class 382, subclass 162.
  - VIII. Claim 32 -33, drawn to instruction code for data analysis, classified in class 100, subclass 138.
  - VIII. Claim 34, drawn to a computer system, classified in class 709, subclass 201.
  - X. Claim 36 - 51, drawn to an electro-optic display, classified in class 345, subclass 45.

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2. The inventions are distinct, each from the other because of the following reasons:

Inventions I - X are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, group I has separate Utility such as a method of digitally processing data in a data array in matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, sensor data processing, biological data analysis, data analysis, instruction code, computer system, & electro-optic display as recited in groups II-X.

Similarly, the invention of group II has separate Utility such as a method of digitally processing data in image matching for matrices factorization which doesn't provide all essential functions for security data network, data mining, sensor data processing, biological data analysis, data analysis, instruction code, computer system, & electro-optic display as recited in groups I, & III-X.

Likewise, the invention of group III has separate Utility such as a method of digitally processing data in a data array in security data network for matrices factorization which doesn't provide all essential functions for image matching, data mining, sensor data processing, biological data analysis, data analysis, instruction code, computer system, & electro-optic display as recited in groups I, II, & III-X.

Moreover, the invention of group IV has separate Utility such as a method of digitally processing data in a data array in data mining for matrices factorization which doesn't provide all essential functions for image matching, security data network,

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sensor data processing, biological data analysis, data analysis, instruction code, computer system, & electro-optic display as recited in groups I- III, & V-X.

Similarly, the invention of group V has separate Utility such as a method of digitally processing data in a data array in sensor data processing for matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, biological data analysis, data analysis, instruction code, computer system, & electro-optic display as recited in groups I-IV, & VI-X.

Also, the invention of group VI has separate Utility such as a method of digitally processing data in a data array in biological data analysis for matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, sensor data processing, data analysis, instruction code, computer system, & electro-optic display as recited in groups I-V, & VII-X.

In addition, the invention of group VII has separate Utility such as a method of data analysis in a matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, sensor data processing, biological data analysis, instruction code, computer system, & electro-optic display as recited in groups I-VI, & VIII-X.

Moreover, the invention of group VIII has separate Utility such as a method of instruction code for data analysis in a matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, sensor data processing, biological data analysis, data analysis, computer system, & electro-optic display as recited in groups I-VII, & VIII-X.

Furthermore, the invention of group VIII has separate Utility such as a method of digitally processing data in a data array in a computer system for matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, sensor data processing, biological data analysis, data analysis, instruction code, & electro-optic display as recited in groups I-VIII & X.

Likewise, the invention of group X has separate Utility such as a method of digitally processing data in data array in a electro-optic display for matrices factorization which doesn't provide all essential functions for image matching, security data network, data mining, sensor data processing, biological data analysis, data analysis, instruction code, & computer system as recited in groups I-VIII. See MPEP § 806.05(d).

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Applicant is advised that the replay to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by

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a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAKEE FANG whose telephone number is (571)270-7219. The examiner can normally be reached on Mon-Friday 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAKEE FANG/  
Examiner, Art Unit 2629

/Chanh Nguyen/  
Supervisory Patent Examiner, Art Unit 2629